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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/753,603

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David I. Suda

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EXAMINER

FREGA, JOHN M

ART UNIT

PAPER NUMBER

3633

MAIL DATE

DELIVERY MODE

06/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/753,603	Applicant(s) SUDA ET AL.	
	Examiner JOHN M. FREGA	Art Unit 3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-37 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-13 and 15-19 is/are rejected.
- 7) ☒ Claim(s) 5, 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>21 December 2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is a detailed office action for application serial number 10/753,603. This action is in reply to an amendment filed 21 December 2007.

Response to Arguments

2. Applicant's arguments, see Remarks pages 1-7, filed 21 December 2007, with respect to the rejection(s) of claim(s) 1-37 under Knapp et al. have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Noonan et al.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 6-7 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Noonan et al. in U.S. Patent #6,270,865.

5. Noonan discloses a method of making an insulation product comprising: forming an uncured or partially cured insulation web and a heat curable binder agent (item 50, see column 4, lines 54-57), applying a nonwoven sheet (item 11) to said web, comprising randomly oriented glass fibers; and heating said uncured or partially cured web and said nonwoven sheet together to cure said web to form a low density mat and

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to bond said nonwoven sheet to a first major surface of said low density mat with said heat curable binder agent (see column 4 lines 34-60).

6. In regards to claim 2, Noonan discloses that said mat contains mineral fibers, specifically fiberglass.

7. In regards to claims 3-4, Noonan discloses placing a kraft paper layer on a second major surface of said insulation mat.

8. In regards to claims 6-7, Noonan discloses (in column 3, lines 12-20 and in column 4, lines 34-60) providing said randomly oriented fibers with a plurality of fiberizers, collecting said fibers on a belt and treating said fibers with said heat curable binder agent; and applying an increased amount of binder agent directly to said nonwoven sheet.

9. In regards to claim 10, Noonan discloses the method of claim 1, whereby at least one of a second major surface and a side portion of said insulation mat is covered (see figures 6 and 7).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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11. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noonan as applied to claim 1 above and in further view of Pfeffer in U.S. Patent #7,220,689.

Noonan discloses the insulation material and method of forming as disclosed in claim 1 but is generally silent in regards to the height and density of the insulation mat.

Pfeffer discloses a low density and lightweight insulation material and discloses that it is known in the art to form such material at a thickness of less than two inches and with a density of less than two pounds per cubic foot (column 2, lines 32-37).

It would be obvious to one of ordinary skill in the art the time of the invention to specify the material of Noonan at the thickness and density of Pfeffer as using material at such a specification would provide sufficient insulation using less material and therefore at a lower overall cost (see column 1, lines 15-20).

12. Claims 11-13, 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noonan and further in view of Pfeffer.

13. In regards to claim 11, Noonan forming an uncured or partially cured insulation web and a heat curable binder agent (item 50, see column 4, lines 54-57), applying a nonwoven sheet (item 11) to said web, comprising randomly oriented glass fibers; and heating said uncured or partially cured web and said nonwoven sheet together to cure said web to form a low density mat and to bond said nonwoven sheet to a first major

surface of said low density may with said heat curable binder agent (see column 4 lines 34-60)

Noonan is silent as to the temperature at which the web is cured. Pfeffer discloses a structurally similar insulation material using a material binder that is heat cured at a temperature between 400 and 475 degrees F.

It would be obvious to one of ordinary skill in the art the time of the invention to cure the insulation of Noonan at the temperature ranges taught by Pfeffer as it would be obvious to heat the insulation to such a temperature in order to properly cure the discloses heat-curable binder agent. A temperature outside of this range would not allow the method of Noonan to be performed.

14. In regards to claim 12, Noonan discloses the forming said nonwoven sheet from glass fibers.

15. In regards to claim 13, Noonan discloses that it is known to use rotary glass fibers.

16. In regards to claims 15-16, Noonan discloses (in column 3, lines 12-20 and in column 4, lines 34-60) providing said randomly oriented fibers with a plurality of fiberizers, collecting said fibers on a belt and treating said fibers with said heat curable binder agent; and applying an increased amount of binder agent directly to said nonwoven sheet.

17. In regards to claim 17, Noonan discloses the insulation material and method of forming as disclosed in claim 1 but is generally silent in regards to the height and density of the insulation mat.

Pfeffer discloses a low density and lightweight insulation material and discloses that it is known in the art to form such material at a thickness of less than two inches and with a density of less than two pounds per cubic foot (column 2, lines 32-37).

It would be obvious to one of ordinary skill in the art the time of the invention to specify the material of Noonan at the thickness and density of Pfeffer as using material at such a specification would provide sufficient insulation using less material and therefore at a lower overall cost (see column 1, lines 15-20).

18. In regards to claims 18 and 19, Pfeffer discloses in claim 7, heating said web to a temperature between 400 and 500 degrees F for a period of at least 20 seconds.

Allowable Subject Matter

19. Claims 5 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: Noonan teaches to compress said insulation product but does not disclose or suggest that the nonwoven sheet is porous to water vapor and air evacuated when said insulation is compressed.

20. Claims 20-37 are allowed. The following is a statement of reasons for the indication of allowable subject matter: The prior art teaches a method of making an insulation product including forming partially cured insulation webs comprised of glass fibers and including a heat curable binder agent, providing a nonwoven sheet

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comprising glass fibers. The prior art does not disclose nor suggest such a method including curing said insulation web and applying said nonwoven sheet while the product is at an elevated temperature. The prior art also does not disclose forming said nonwoven sheet from first and second randomly oriented fibers such that the first fibers having a melting point above the web curing temperature and the second fibers have a melting point below the web curing temperature.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent #5,766,395, 5,848,509, 6,357,504, 6,415,573, 7,070,674.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN M. FREGA whose telephone number is (571)270-3662. The examiner can normally be reached on Monday through Thursday, 7:30am-5:30pm E.D.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on (571) 272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. M. F./
Examiner, Art Unit 3633

jmf

/Robert J Canfield/
Supervisory Patent Examiner, Art Unit 3635